

What is claimed is:

1. A scanner comprising:

- ✓ a light-beam emitter for emitting a light beam;
- a light-beam deflector for deflecting said light beam to scan a scanning surface;
- ✓ a photo-detector provided at a position outside an image-forming scanning range of said scanning surface to detect a scanning light beam before said scanning light beam starts generating a scanning line in said image-forming scanning range;

a rotatable member located in front of an incident surface of said photo-detector and positioned in a recess formed on (an outer surface) of a housing, said rotatable member being rotatable about a rotational axis perpendicular to a plane defined by said scanning light beam by said deflector;

✓ an optical member that is provided on said rotatable member, said optical member allowing said scanning light beam to pass therethrough to be incident upon said incident surface of said photo-detector; and

a device for adjusting rotational position of said rotatable member about said rotational axis;

wherein a through hole through which said optical member is inserted in said housing is formed at the bottom of said

recess, and said optical member is inserted into said housing through said through hole.

2. A scanner comprising:

a light-beam emitter for emitting a light beam;

a light-beam deflector for deflecting said light beam to scan a scanning surface;

a photo-detector provided at a position outside an image-forming scanning range of said scanning surface to detect a scanning light beam before said scanning light beam starts generating a scanning line in said image-forming scanning range;

a rotatable member located in front of an incident surface of said photo-detector and positioned in a recess formed in a housing, said rotatable member being rotatable about a rotational axis perpendicular to a plane defined by said scanning light beam by said deflector;

an optical member that is provided on said rotatable member, said optical member allowing said scanning light beam to pass therethrough to be incident upon said incident surface of said photo-detector; and

an adjusting device for adjusting rotational position of said rotatable member about said rotational axis and comprising a member, fixed to said housing, that presses said rotatable member against the bottom of said recess.

cl. 13 3. The scanner according to claim 2, wherein said pressing member comprises a spring.

cl. 14 4. The scanner according to claim 3, wherein said spring comprises a leaf spring fixed to said housing by at least one set screw.

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Fig. 10 OK 5. A scanner comprising:  
a light-beam emitter for emitting a light beam;  
a light-beam deflector for deflecting said light beam to scan a scanning surface;

a photo-detector provided at a position outside an image-forming scanning range of said scanning surface to detect a scanning light beam before said scanning light beam starts generating a scanning line in said image-forming scanning range;

a rotatable member located in front of an incident surface of said photo-detector, said rotatable member being rotatable about a rotational axis perpendicular to a plane defined by said scanning light beam by said deflector;

an optical member that is provided on said rotatable member, said optical member allowing said scanning light beam to pass therethrough to be incident upon said incident surface of said photo-detector;

cl. 15 a device for rotating said rotatable member about said rotational axis,] said device comprising a radial slot formed

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on said rotatable member to extend in a radial direction thereof and a rotating tool engageable with said rotatable member to rotate said rotatable member about said rotational axis,

wherein said tool comprises an engaging pin engageable with said radial slot, an axis of said engaging pin deviating from a rotational axis of said rotating tool.

cl.17  
Fig. 11 OK.  
6. A scanner comprising:

a light-beam emitter for emitting a light beam;

a light-beam deflector for deflecting said light beam to scan a scanning surface;

a photo-detector provided at a position outside an image-forming scanning range of said scanning surface to detect a scanning light beam before said scanning light beam starts generating a scanning line in said image-forming scanning range;

a rotatable member located in front of an incident surface of said photo-detector, said rotatable member being rotatable about a rotational axis perpendicular to a plane defined by said scanning light beam by said deflector;

an optical member that is provided on said rotatable member, said optical member allowing said scanning light beam to pass therethrough to be incident upon said incident surface of said photo-detector;

a device for rotating said rotatable member about said rotational axis, said device comprising a circumferential gear (70')  
formed on an outer peripheral surface of said rotatable member  
and a rotating tool engageable with said rotatable member to  
rotate said rotatable member about said rotational axis, said  
rotating tool comprising a pinon gear (702) which is engaged with  
said circumferential gear.

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